Software Assignment
AI1110: Probability and Random Variables
Indian Institute of Technology Hyderabad

CS22BTECH11061
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The program is a simple music player written in Python with a graphical user interface (GUI) using Tkinter. It allows the user to play songs randomly from a specified directory named "songs" in the cwd and includes features such as -

1) Play
2) Pause
3) Shuffle
4) Forward
5) Resume

The program uses the pygame library for audio playback and numpy for random song selection. Upon launching the program, the user is presented with a GUI window that displays the current song playing and various buttons for controlling playback.

- The "Play" button selects a random song from the specified directory and starts playing it. If there are no songs in the directory, an appropriate message is displayed. The program ensures that the same song is not played immediately after it has been played before.
- The "Pause" button pauses the currently playing song.
- The "Shuffle" button shuffles the songs in the directory and starts playing the first song from the shuffled list. The program keeps track of the played songs to avoid immediate repetition.
- The "Forward" button selects the next random song and starts playing it. Similar to the "Play" button, it ensures that the same song is not played immediately after it has been played before.
- The "Resume" button resumes playback if the song is in a paused state.
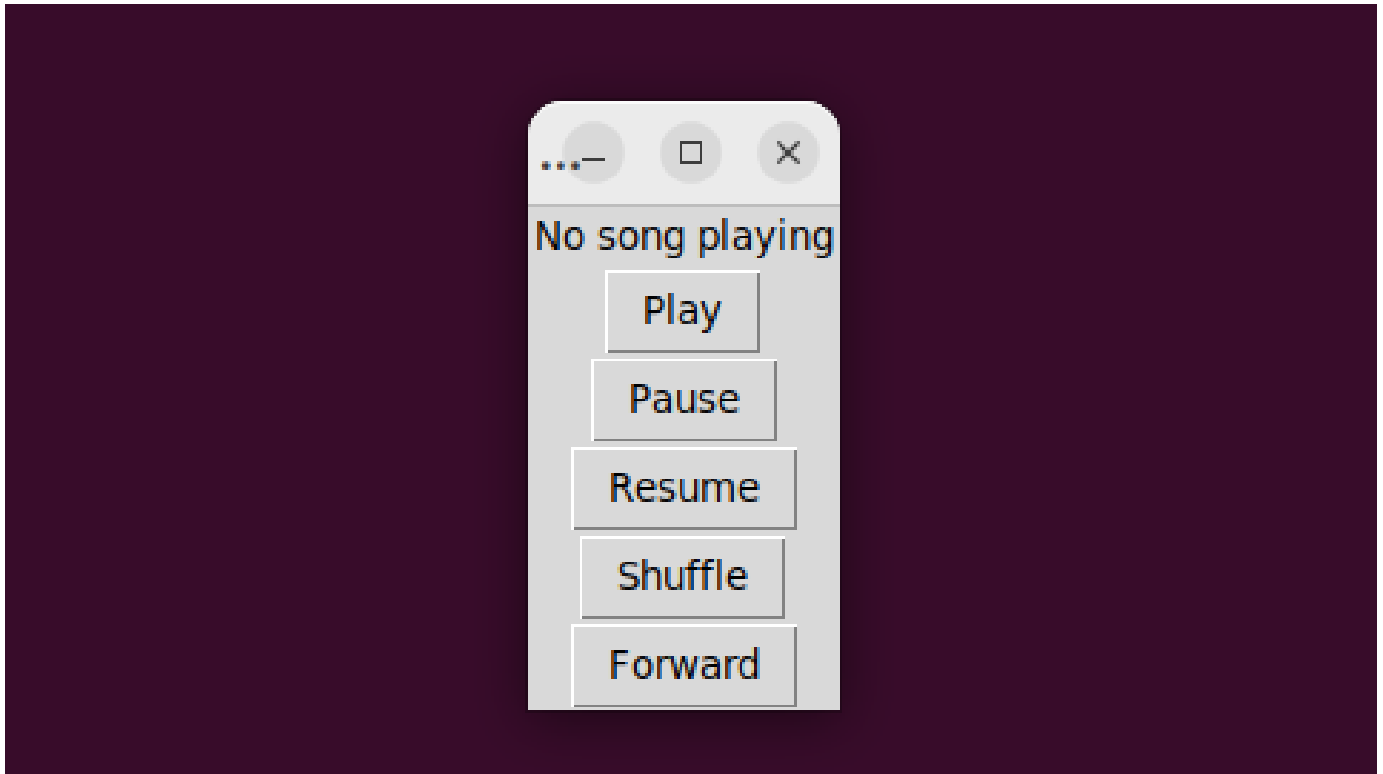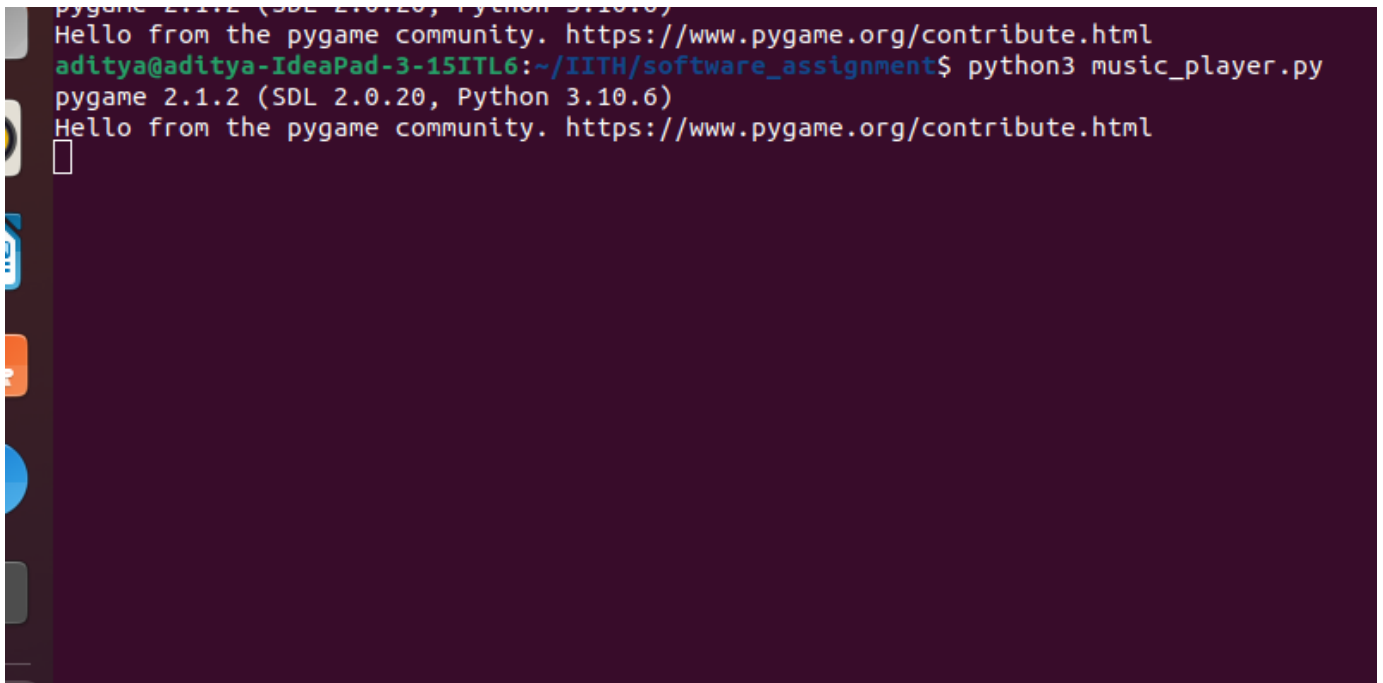
The Running program is shown on later pages

Fig. 5. Music player UI

Fig. 5. Music player on terminal